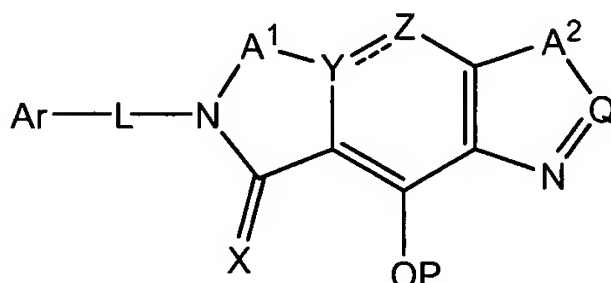


### Amendments to the Specification

Please insert the paragraph beginning on the following page of this response on page 17 in the original specification before line 6.

In one aspect, the invention is a compound having the structure:

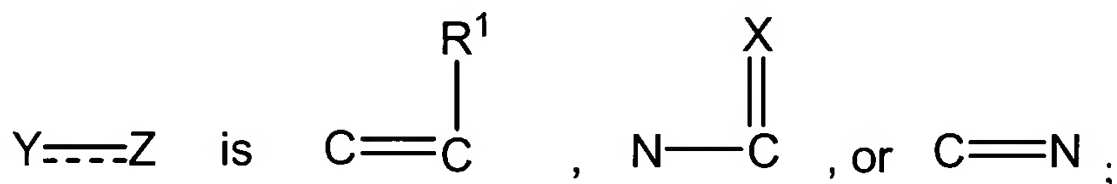


or a salt thereof;

wherein:

$A^1$  and  $A^2$  are independently selected from O, S, NR,  $C(R^2)_2$ ,  $CR^2OR$ ,  $CR^2OC(=O)R$ ,  $C(=O)$ ,  $C(=S)$ ,  $CR^2SR$ ,  $C(=NR)$ ,  $C(R^2)_2-C(R^3)_2$ ,  $C(R^2)=C(R^3)$ ,  $NR-C(R^3)_2$ ,  $N=C(R^3)$ ,  $N=N$ ,  $SO_2-NR$ ,  $C(=O)C(R^3)_2$ ,  $C(=O)NR$ ,  $C(R^2)_2-C(R^3)_2-C(R^3)_2$ ,  $C(R^2)=C(R^3)-C(R^3)_2$ ,  $C(R^2)C(=O)NR$ ,  $C(R^2)C(=S)NR$ ,  $C(R^2)=N-C(R^3)_2$ ,  $C(R^2)=N-NR$ , and  $N=C(R^3)-NR$ ;

Q is N,  $^+NR$ , or  $CR^4$ ;



L is selected from a bond, O, S, S-S, S(=O), S(=O)<sub>2</sub>, S(=O)<sub>2</sub>NR, NR, N-OR, C<sub>1</sub>-C<sub>12</sub> alkylene, C<sub>1</sub>-C<sub>12</sub> substituted alkylene, C<sub>2</sub>-C<sub>12</sub> alkenylene, C<sub>2</sub>-C<sub>12</sub> substituted alkenylene, C<sub>2</sub>-C<sub>12</sub> alkynylene, C<sub>2</sub>-C<sub>12</sub> substituted alkynylene, C(=O)NH, OC(=O)NH, NHC(=O)NH, C(=O), C(=O)NH(CH<sub>2</sub>)<sub>n</sub>, or (CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>, where n may be 1, 2, 3, 4, 5, or 6;

X is selected from O, S, NH, NR, N-OR, N-NR<sub>2</sub>, N-CR<sub>2</sub>OR and N-CR<sub>2</sub>NR<sub>2</sub>;

Ar is selected from C<sub>3</sub>-C<sub>12</sub> carbocycle, C<sub>3</sub>-C<sub>12</sub> substituted carbocycle, C<sub>6</sub>-C<sub>20</sub> aryl, C<sub>6</sub>-C<sub>20</sub> substituted aryl, C<sub>2</sub>-C<sub>20</sub> heteroaryl, and C<sub>2</sub>-C<sub>20</sub> substituted heteroaryl;

$R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each independently selected from H, F, Cl, Br, I, OH, -NH<sub>2</sub>, -NH<sub>3</sub><sup>+</sup>, -NHR, -NR<sub>2</sub>, -NR<sub>3</sub><sup>+</sup>, C<sub>1</sub>-C<sub>8</sub> alkylhalide, carboxylate, sulfate, sulfamate, sulfonate, 5-7 membered ring sultam, C<sub>1</sub>-C<sub>8</sub> alkylsulfonate, C<sub>1</sub>-C<sub>8</sub> alkylamino, 4-dialkylaminopyridinium, C<sub>1</sub>-C<sub>8</sub> alkylhydroxyl, C<sub>1</sub>-C<sub>8</sub> alkylthiol, -SO<sub>2</sub>R, -SO<sub>2</sub>Ar, -SOAr, -SAr, -SO<sub>2</sub>NR<sub>2</sub>, -SOR, -CO<sub>2</sub>R, -C(=O)NR<sub>2</sub>, 5-7 membered ring lactam, 5-7 membered ring lactone, -CN, -N<sub>3</sub>, -NO<sub>2</sub>, C<sub>1</sub>-C<sub>8</sub> alkoxy, C<sub>1</sub>-C<sub>8</sub> trifluoroalkyl, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> substituted alkyl, C<sub>3</sub>-C<sub>12</sub> carbocycle,

C<sub>3</sub>–C<sub>12</sub> substituted carbocycle, C<sub>6</sub>–C<sub>20</sub> aryl, C<sub>6</sub>–C<sub>20</sub> substituted aryl, C<sub>2</sub>–C<sub>20</sub> heteroaryl, and C<sub>2</sub>–C<sub>20</sub> substituted heteroaryl, polyethyleneoxy, phosphonate, phosphate, and a prodrug moiety;

when taken together on a single carbon, two R<sup>2</sup> or two R<sup>3</sup> may form a spiro ring;

R is independently selected from H, C<sub>1</sub>–C<sub>8</sub> alkyl, C<sub>1</sub>–C<sub>8</sub> substituted alkyl, C<sub>6</sub>–C<sub>20</sub> aryl, C<sub>6</sub>–C<sub>20</sub> substituted aryl, C<sub>2</sub>–C<sub>20</sub> heteroaryl, and C<sub>2</sub>–C<sub>20</sub> substituted heteroaryl, polyethyleneoxy, phosphonate, phosphate, and a prodrug; and

P is a protecting group selected from benzyldryl (CHPh<sub>2</sub>), trialkylsilyl (R<sub>3</sub>Si), 2-trimethylsiloxyethyl, alkoxymethyl (CH<sub>2</sub>OR), and ester (C(=O)R).